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CLMPTO

10/039,614

12/31/2001

swh

Please cancel claims 1-5

Please add the following new claims

6. As apparatus for mixing a physicity of audio signals having different amplitude levels, wherein the apparatus comprises:

neams for adjusting the amplitude levels of said plurably of audio signals based on a plurably of distinct gain requirements of said plurably of audio signals, wherein said means for adjusting the amplitude levels comprises.

ascent for forming a first set of audio signals of said plurality of audio signals based on a first gain requirements:

means for furning a second set of sudio signals of suid plurality of audio signals based on a second gain requirement of said plurality of distinct gain requirements, said second set of sudio signals being different than said first set of audio signals.

means for applying a first gain to said first set of audio rignals, said first gain determined by said first gain requirement; and

means for applying a second gain to said second set of sudio signals, said second gain determined by said second gain requirement;

wherein said means for applying the first gain and sold means for applying the accord gain form a phurality of weighted signals:

means for summing together said plurality of weighted signals.

7. The appearance as described in claim 6, wherein said means for applying the first gain to said first set of audio signals comprises means for amplifying said first set of audio signals using a liest fixed gain amplifier having a gain capal to said first gain requirement of said plandity of distinct gain requirements.

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The appearus as described in claim 7, wherein said means for applying the record gain to said around set of audio signals comprises means for amplifying said accord set of audio signals using a second fixed gain amplifier having a gain equal to said second gain requirement of said plurality of distinct pain requirements.

- The apparatus as described in claim 6, wherein said means for forming a first set of audio signals comprises exems for something said audio signals of the first set using a plantity of operational amplifices.
- 10. The appearants as described in claim 9, wherein said areas for forming a second set of sucker signals comprises means for cumming said autho signals of the second set using a plurality of operational amphifiers.
- 11. An audio mixer comprising:

a planatity of summing accies configured to from different sets of audio signals based on each individual gain requirement of such audio signal.

a planeticy of gain amplifiers, each of said plumity of gain amplifiers being complete to receive a signal from one of the planetity of summing nodes, and each of said plurality of gain amplifiers provides a distinct gain for each set of sudio signals, wherein each distinct gain is equivalent to the individual gain requirement of each set of sudio signals; and an output aumaning made complete to receive corput signals of said gain amplifices.

 The audio raixer as described in claim 11, wherein the plurality of summing nodes compaises a planulity of operational amplifier nodes.

13. A computer system having:

- а рессеязон
- a hos coupled to said processor;
- a memory coupled to said bus;

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an autio mixer coupled to said bus and configured to adjust the amplitude levels of a phunlity of audio signals having different amplitude levels, wherein said audio mixer comprises:

a planaticy of comming nodes configured to form different sets of audio signals based on each individual gain requirement of each audio signal:

a plantity of gain amplifiers, each of said plantity of gain implifiers being coupled to receive a signal from one of the plantity of summing nodes, and each of said plantity of gain amplifiers provides a distinct gain for each set of sadin signals, wherein each distinct gain is equivalent to the individual gain requirement of each set of sucho signals; and

an comput summing coule complete to necessive comput signals of said guins amphibians.

- 14. The congener system as described in claim 13, wherein the plurality of summing males comprises a plurality of operational amplifier nodes.
- 15. The computer system as described in claim 12, wherein said audio mixer digitally processes said different sets of audio signals.
- 16. A machine readable medium containing executable computer program instructions which when executed by a processing system cause said processing system to perform a machod of mixing a plansity of saddo signals having different amplitude levels, wherein the control comprises:

adjusting the amplitude levels of said plurality of audio signals based on a plurality of distinct gain requirements of said plurality of audio signals, wherein adjusting the amplitude levels comprises:

forming a first set of andin signals of said plurality of saido signals based on a first gain requirement of said plurality of distinct gain requirements:

forming a second set of autho signals of and plurality of blobe signals based on a second gain requirement of said plurality of diction gain requirements, wild second set of radio signals being different than said first set of audio signals.

applying a first gain to said first act of audio signals, said first gain determined by said first gain requirement; and

applying a second gain to said second set of audio signals, said second gain determined by said second gain requirement:

wherein sold applying the linst gain and applying the second gain forms a plurality of weighted signals;

summing treather said plurality of weighted signals.

- 17. The machine resistable medium as described in claim 16, wherein said applying the first gain to said first set of audio signals comprises amplifying said first set of audio signals using a first fixed gain amplifier having a gain equal to said first gain exponented of said planality of distinct gain requirements.
- 18. The machine madable medium as described in claim 17, wherein said applying the second gain to said second set of audio signals compares amplifying said second set of audio signals using a second fixed gain amplifier baving a gain equal to said accord gain requirement of said plurality of distinct gain requirements.
- 19. The machine traciable medium as described in claim 16, wherein forming a first set of audio signals comprises summing said audio signals of the first set using a plurality of operational amplifices.
- 20. The machine readable medium as described in claim 19, wherein forming a second set of audio signals comprises summing said audio signals of the second set using a plurality of operational amplifiers.

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